What is claimed is:

1. A method for producing high-strength parts, comprising the steps of:

performing a stereolithography part generation process to create a polymer part having opposing interior surfaces;

interposing an uncured strength material between said opposing interior surfaces; and

heating said polymer part with said uncured strength material interposed between said opposing interior surfaces, wherein said uncured strength material cures and bonds to said opposing interior surfaces.

2. A method according to claim 1 wherein said step of performing includes the step of generating a plurality of spaced apart internal supports integral with and between said opposing interior surfaces during said stereolithography part generation process to a gap between said opposing interior surfaces.

3. A method according to claim 2 wherein:

said step of performing further includes the step of providing a first hole and a second hole in said

polymer part, each of said first hole and said second hole communicating with said gap; and

said step of filling includes the step of injecting said uncured strength material into said first hole.

4. A method according to claim 3 further comprising the step of applying a vacuum to said second hole while said uncured strength material is injected into said first hole.

5. A method according to claim 1 wherein:

said step of performing creates a first shell of said polymer part and creates a second shell of said polymer part that can be nested with said first shell to define said opposing interior surfaces; and

said step of filling is accomplished by sandwiching said first shell and said second shell about said uncured strength material.

6. A method according to claim 5 wherein said step of filling comprises the steps of:

placing a mesh between said first shell and said second shell;

wetting said mesh with a catalyzed resin to form said uncured strength material; and

pressing said first shell and said second shell together about said mesh wetted with said catalyzed resin, wherein said mesh conforms to said opposing interior surfaces.

7. A high-strength part, comprising:

a part made from a photo-curable polymer, said part having opposing interior surfaces; and

a strength material interposed between and bonded to said opposing interior surfaces.

8. A high-strength part as in claim 7 further comprising a plurality of spaced apart internal supports made from said photo-curable polymer, said plurality of spaced apart internal supports further being integral with said opposing interior surfaces to create a gap therebetween.

9. A high-strength part as in claim 7 wherein said strength material comprises a mixture of an epichlorohydrin resin, a catalyst and filler particles.

10. A high-strength part as in claim 9 wherein said catalyst is selected from the group consisting of methylendomethylene, hexahydrophthalic anhydride, dodecenylsuccinic anhydride, and polyamide.

11. A high-strength part as in claim 9 wherein said catalyst is methylendomethylene mixed with said epichlorohydrin resin in a proportion of 80-90 weight percent of said epichlorohydrin resin.

12. A high-strength part as in claim 11 wherein said filler particles are glass fibers in the range of 1/32 to 1/64 of an inch in length.

13. A high-strength part as in claim 12 wherein said glass fibers are 50-60 weight percent of said epichlorohydrin resin.

14. A high-strength part as in claim 9, said mixture further comprising aluminum powder in a proportion up to 10 weight percent of said epichlorohydrin resin.

15. A high-strength part as in claim 7 wherein said strength material comprises a mesh wetted with a catalyzed epichlorohydrin resin.

16. A high-strength part as in claim 15 wherein said catalyzed epichlorohydrin resin uses a catalyst selected from the group

consisting of methylendomethylene, hexahydrophthalic anhydride, dodecenylsuccinic anhydride, and polyamide.

17. A high-strength part as in claim 16 wherein said catalyst is methylendomethylene mixed with a epichlorohydrin resin in a proportion of 80-90 weight percent of said epichlorohydrin resin.